

Distribution: Atlantic and Mediterranean Europe (from Britain to Greece) extending to Central Europe, Cyprus, Turkey, Syria, Lebanon, Palestine, Egypt Iran, Iraq, Pakistan, India; naturalised throughout the warmer temperate regions — USSR, China, Japan, Taiwan,

Malaysia, Indonesia, Australia, Polynesia, Macaronesia, North Africa (Morocco, Algeria), South Africa, North and South America and West Indies.

Use: Occasionally grown in gardens as an ornamental grass for its delicate inflorescence.

NEW FOREST, DEHRA DUN.

H. B. NAITHANI

BOTANICAL SURVEY OF INDIA,
NORTHERN CIRCLE, DEHRA DUN,
April 7, 1988.

B. P. UNIYAL

39. A NOTE ON LICHEN GENUS *PROTOBLASTENIA* FROM INDIA

(With a text-figure)

The family Teloschistaceae, as circumscribed by Poelt (1973), includes all the genera that had previously been placed in Caloplacaceae by Zahlbruckner (1926). *Protoblastenia* is one such genus characterized by a crustose thallus, apothecia biatorine, scarlet red to red-brown, disc and exciple K+ violet-purple, and spores hyaline, single celled. The genus is represented in India by two species.

One of the species, *P. griseococcinea* (Nyl. in Hue) Inoue, was described as *Lecidea griseococcinea* Nyl. in Hue (1892) on the material collected by J. D. Hooker from granitic rocks at an altitude of about 3000 ft. (c. 900 m.) in the Himalayas. It is reported to be close to the following species except for its saxicolous habit. The taxon has apparently not been collected again.

The second species, *Protoblastenia russula*, is fairly common as a corticolous species widely distributed in India as detailed below.

***Protoblastenia russula* (Ach.) Räs.**

Revist. Sudamer. Bot.: 5: 67 (1938). — *Lecidea russula* Ach., Meth. Lich.: 61 (1803).

Type collection: (Tropical?) America, Swartz-not seen. (Fig. 1).

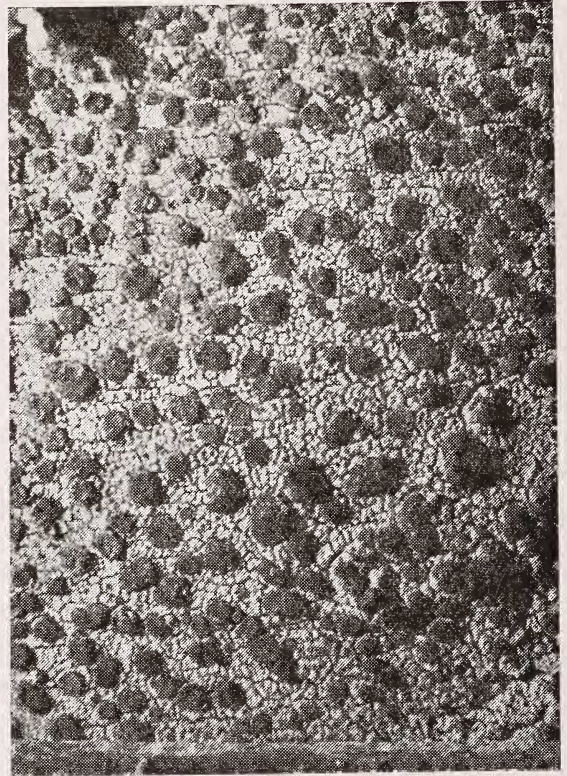


Fig. 1. *Protoblastenia russula* (Ach.) Räs.
Upreti & Misra 80.126 (LWU).
(Scale: 1 div. = 1 mm)

Thallus corticolous, crustose, thin, pale grey to pale brown, rimose-areolate, sometimes with minute verrucae. Apothecia scarlet-red to red-brown, (0.2-) 0.5-1 (-2) mm diam., often crowded to compact, disc plane, round to sometimes irregularly lobed in over-mature condition, margin concolorous to disc or slightly paler, distinct in young apothecia and often almost excluded in mature and lobed apothecia. Exciple pale yellow, prosoplectenchymatous, 80-100 μm thick, exterior region K+ violet-purple; epithecium orange-red to red-brown, K+ violet purple, hymenium pale yellow, 40-50 μm high, I+ blue; hypothecium hyaline to pale yellow, 20-30 μm thick, K-. Asci clavate, 34-40 \times 10-12 μm , 8-spored, tholus thin, cap-like, circular to angular at the apex, I+ blue. Spores simple, hyaline, thin-walled, ellipsoid, (4-) 6-8 (-10) \times 2-4 μm . Paraphyses simple, capitate. Thallus K+ yellow, C-, P+ orange.

Chemistry: Two strains by TLC: Strain I: fumarprotocetraric acid and trace of atranorin; strain II: norstictic acid and fumarprotocetraric acid (\pm) and trace of atranorin.

The taxon is widely distributed in tropical, subtropical to lower temperate regions of India as also in the world. It had been reported earlier from two localities from India as *Lecidea russula*.

Specimens examined:

Strain I: Madhya Pradesh, Hoshangabad district, Pachmarhi, near Apsara Vihar Falls, alt. c. 1080 m, 1980, Upreti & Misra 80.126 (LWU) — (Fig. 1); Meghalaya, Shillong, Laitkar forest, alt. c. 1650 m, 1964, Awasthi

6010, 6444 (Awas); Tamil Nadu, Nilgiri hills, Kodanad to Kilkotagiri, in shola, alt. c. 1800 m, 1971, Awasthi & Singh 71.86 (LWU); Nepal, Tistung, 1965, Banerjee s.n. (Awas); Central Nepal, Bagmati zone, Manichur, near herbal farm, alt. c. 2100 m, 1976, Sharma 76.365 (LWU).

Strain II: Karnataka, Bangalore district, Bannergatta-Hazum Kalu, alt. c. 980 m, 1979, Awasthi, Upreti & Misra 79.126, 79.138 (LWU); Hassan district, Sakleshpur, Sambhalli, alt. c. 980 m, 1979, Awasthi, Upreti & Misra, 79.355 (LWU); Mangalore district, Sakleshpur, Shiradighats on way to Mangalore, alt. c. 770 m, 1979, Awasthi, Upreti & Misra, 79.576 (LWU); Tamil Nadu, Palni Hills, Shembaganur, in pear orchard, alt. c. 1800 m, on bark of pear tree, 1970, Singh 70.865 (LWU); Nilgiri Hills, Kilkotagiri to near Konada, in shola, alt. 1800 m, 1971, Awasthi & Singh 71.19, 71.87 (LWU); West Bengal, Darjeeling district, Kalimpong division, Munsong, alt. c. 1500 m, on bark of *Alnus nepalensis*, 1967, Awasthi & Agarwal, 67.254 (LWU); Central Nepal, Bagmati zone, Manichur, near herbal farm, alt. c. 2100 m, 1976, Sharma 76.389 (LWU).

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DEPARTMENT OF BOTANY,
LUCKNOW UNIVERSITY,
LUCKNOW,
April 8, 1988.

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 Ahmadjian & M. E. Hale. The Lichens. Appendix

40. REDISCOVERY OF A RARE FERN *MACROTHELYPTERIS ORNATA* (WALL. EX BEDD.) CHING (THELYPTERIDACEAE) IN NORTHWESTERN HIMALAYA FROM KUMAUN AFTER A CENTURY

This fern is one of the handsomest of Indian ferns and is much cultivated. It is common in northeastern India, South India, Bangladesh, Nepal, Bhutan, Sri Lanka, Malaya, Northern Australia and Polynesia. The occurrence of this species in northwestern Himalaya from Kumaun dates back to Clarke (1880) who reported it to be common from Kumaun to Bhutan in tropical valleys up to 600 m. Beddome (1883) also reported it from Kumaun to Bhutan, based on the report made by Clarke (1880). But, its being common in Kumaun Himalaya appears to be doubtful because it has not been collected since then from any part of Kumaun Himalaya by subsequent workers who reported it on the authority of Clarke (1880).

Hope (1903), while listing the known ferns of northwestern Himalaya, also included it on the authority of Clarke (1880) with this remark: "I enter this species on Mr. Clarke's authority, but I do not think it can be common in Kumaun, as he seems to say, for none of my correspondents seem to have found it there. I have not myself collected it in the low-lying valleys of Kumaun, except in that of the Gola, from about 2000 ft upwards, and I did not see it there." Further, Duthie (1906) also reported this species from Kumaun Himalaya on the authority of Clarke (1880). Recently, Dhir (1980), who enumerated all the known species of ferns from northwestern

Himalaya, based on his collections coupled with earlier records of ferns from this region, also did not collect this species from Kumaun Himalaya and included it on the authority of Clarke (1880). More recently, Khullar *et al.* (1983) gave a detailed taxonomic account of the family Thelypteridaceae of Western Himalaya; they too did not see any herbarium specimen collected so far from northwestern Himalaya, and included this species on the authority of Clarke (1880). Dixit (1984) also did not mention the distribution of this species in northwestern Himalaya. It is clear from this that none of the subsequent workers could collect this species from any part of Kumaun Himalaya after Clarke (1880) in northwestern Himalaya.

During the course of explorations of Pteridophytic flora of Kumaun Himalaya, some specimens of an interesting fern were collected. After critical study, it was identified as *Macrothelypteris ornata* (Wall. ex Bedd.) Ching belonging to the family Thelypteridaceae. The collection of this species from Kumaun Himalaya in northwestern Himalaya indicates that this species is being collected after 107 years. Its rediscovery from Kumaun Himalaya is an important novelty for the fern flora of Kumaun in particular and fern flora of northwestern Himalaya in general.

In the present paper, a brief description along with other relevant information is pro-